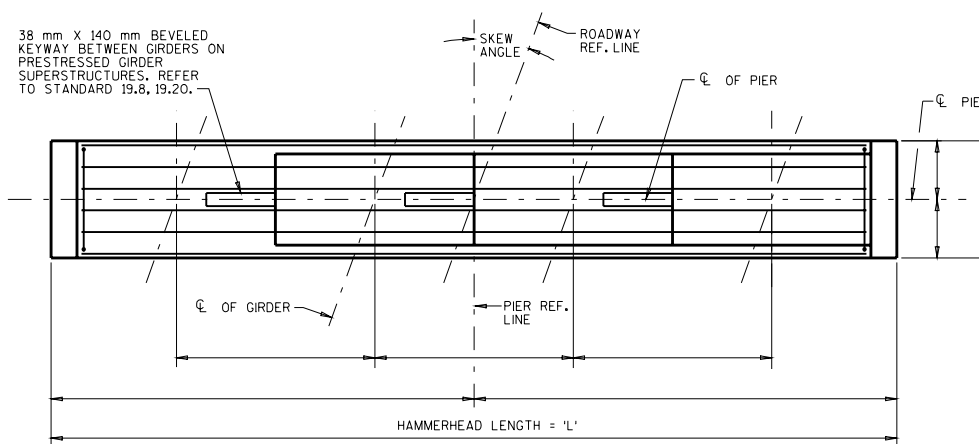
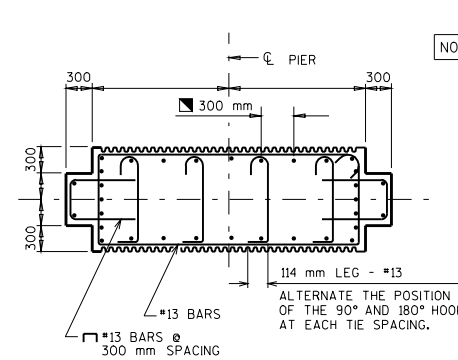


**SECTION P1**



**PLAN OF PIER CAP**



**SECTION P2**

**NOTE 1** MINIMUM STEP TO BE 5 mm FOR ELASTOMERIC BEARING PADS AND 10 mm FOR STEEL BEARINGS. IF LESS, DETAIL ELASTOMERIC BEARINGS AT SAME ELEVATION (LOWER ONE) OR DETAIL STEEL SHIM PLATE FOR STEEL BEARING. SHOW LOCATION AND SIZE OF SHIM IN "PLAN VIEW". AT THE DESIGNERS OPTION A SLOPE MAY BE USED BETWEEN BEAM SEATS.

ALL BAR SPLICES TO BE BASED ON "CLASS C" TENSION LAP SPLICE.

OPTIONAL KEYED CONSTRUCTION JOINTS IN SHAFT SHALL BE PLACED APPROXIMATELY 600 mm ABOVE NORMAL WATER ELEVATION. OPTIONAL KEYED CONSTRUCTION JOINT IN SHAFT SHALL BE USED IN ORDER THAT MAXIMUM HEIGHT OF POUR DOES NOT EXCEED 6000 mm.

KEYED CONSTRUCTION JOINTS SHALL BE FORMED BY BEVELED KEYWAY 100 mm DEEP x 1/3 THICKNESS OF SHAFT x 1000 mm LESS THAN LENGTH OF SHAFT. EXPOSED EDGES OF CONSTRUCTION JOINT SHALL BE FLUSH AND NOT BEVELED.

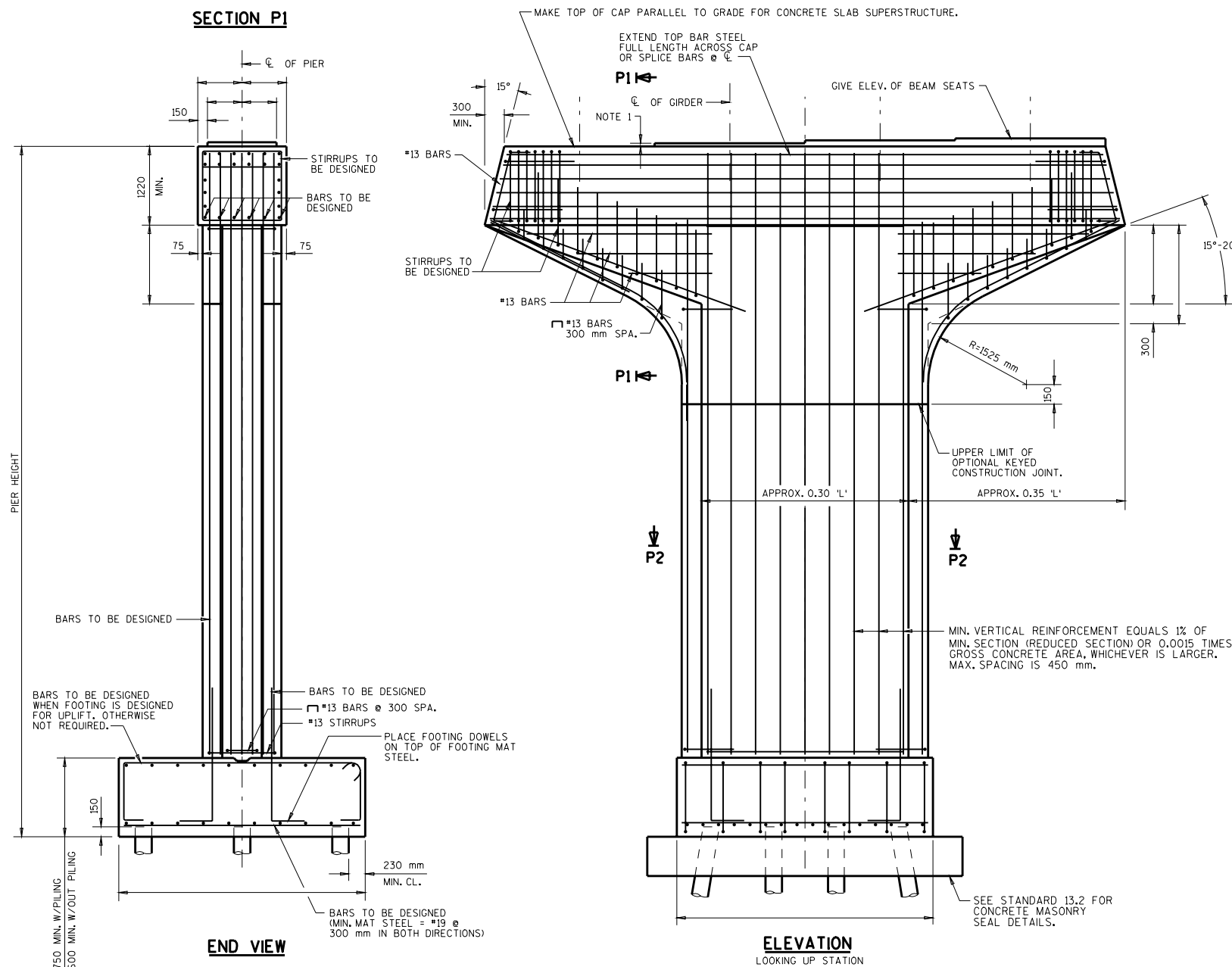
SEE BRIDGE MANUAL FOR ADDITIONAL REINFORCING STEEL IN BEARING AREA FOR BEAM SEATS THAT ARE 100 mm OR MORE ABOVE LOWEST BEAM SEAT.

THIS MAXIMUM SPACING APPLIES ONLY WHEN THE VERTICAL REINFORCEMENT IS 1% OR MORE OF THE GROSS CONCRETE AREA. VERTICAL REINFORCEMENT NEED NOT BE ENCLOSED BY LATERAL TIES IF VERTICAL REINFORCEMENT AREA IS LESS THAN 0.01 TIMES GROSS CONCRETE AREA AND VERTICAL REINFORCEMENT IS NOT REQUIRED AS COMPRESSION REINFORCEMENT.

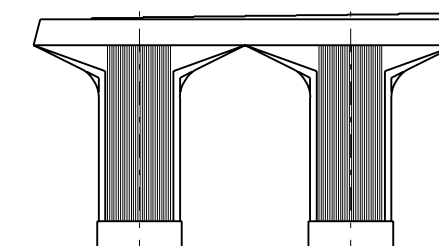
FOR "HAMMERHEAD LENGTH" GREATER THAN 14000 mm CONSIDER A TWO SHAFT PIER FRAME RESEMBLING TWO HAMMERHEAD PIERS PLACED SIDE BY SIDE.

SEE STANDARD 13.1 FOR MINIMUM OFFSETS FROM BEARINGS TO SIDES OF CAP AND TO ADJACENT BEARING SEAT STEPS.

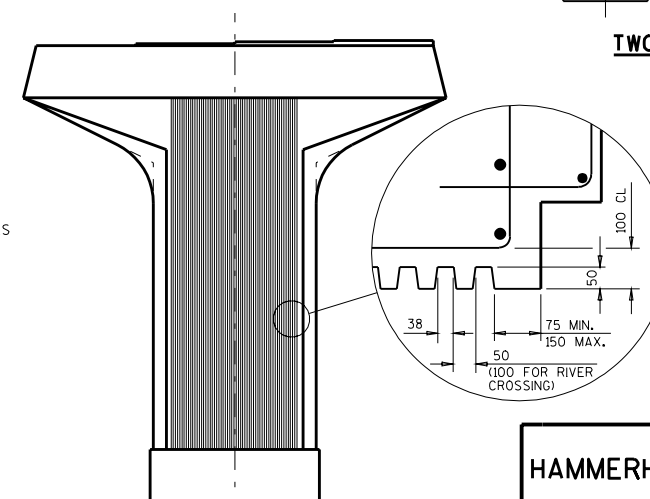
ALL DIMENSIONS ARE IN MILLIMETERS.



**ELEVATION**  
LOOKING UP STATION



**TWO SHAFT PIER**



**TEXTURING LIMITATIONS OF PIER WALL**  
(EACH FACE)

## HAMMERHEAD PIER - TYPE 2

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION  
STRUCTURES DEVELOPMENT SECTION

APPROVED: \_\_\_\_\_

DATE:  
1/03